IN THE CLAIMS

Please amend the claims as follows:

1 (Currently Amended): An information processing system comprising:

a first processor having a first local memory;

a second processor having a second local memory;

a third processor having a third local memory;

means for mapping one of the second local memory and the third local memory in part of an effective address space of a first thread to be executed by the first processor, said one of the second local memory and the third local memory being the local memory of a corresponding one of the second processor and the third processor, which executes a second thread interacting with the first thread; and

means for changing a local memory to be mapped in part of the effective address space of the first thread from said one of the second local memory and the third local memory ~~which is to be mapped in part of the effective address space of the first thread~~ to the other of the second local memory and the third local memory when a processor that executes the second thread is changed from said one of the second processor and the third processor ~~that executes the second thread is changed~~ to the other of the second processor and the third processor.

2 (Currently Amended): The information processing system according to claim 1, further comprising:

a shared memory shared by the first processor, the second processor, and the third processor;

means for storing contents of said one of the second local memory and the third local memory in a memory area on the shared memory when the second thread stops to run; and

means for changing a local memory to be mapped in part of the effective address space of the first thread from said one of the second local memory and the third local memory ~~which is to be mapped in part of the effective address space of the first thread~~ to the memory area on the shared memory.

3 (Currently Amended): The information processing system according to claim 2, further comprising:

means for restoring contents of the memory area on the shared memory to said one of the second local memory and the third local memory when the second thread is resumed by said one of the second processor and the third processor; and

means for changing a local memory to be mapped in part of the effective address space of the first thread from the memory area on the shared memory ~~to be mapped in part of the effective address space of the first thread~~ to said one of the second local memory and the third local memory.

4 (Currently Amended): The information processing system according to claim 2, further comprising:

means for restoring contents of the memory area on the shared memory to the other of the second local memory and the third local memory when the second thread is resumed by the other of the second processor and the third processor; and

means for changing a local memory to be mapped in part of the effective address space of the first thread from the memory area on the shared memory ~~to be mapped in part of the effective address space of the first thread~~ to the other of the second local memory and the third local memory.

5 (Currently Amended): A method of managing a local memory used for communication between a plurality of threads, the threads being executed by an information processing system including a first processor having a first local memory, a second processor having a second local memory, and a third processor having a third local memory, the method comprising:

mapping one of the second local memory and the third local memory in part of an effective address space of a first thread to be executed by the first processor, said one of the second local memory and the third local memory being the local memory of a corresponding one of the second processor and the third processor, which executes a second thread interacting with the first thread; and

changing a local memory to be mapped in part of the effective address space of the first thread from said one of the second local memory and the third local memory ~~which is to be mapped in part of the effective address space of the first thread~~ to the other of the second local memory and the third local memory when ~~the~~ a processor that executes the second thread is changed from said one of the second processor and the third processor ~~that executes the second thread is changed~~ to the other of the second processor and the third processor.

6 (Currently Amended): The method according to claim 5, further comprising:

storing contents of said one of the second local memory and the third local memory in a memory area on a shared memory, which is shared by the first processor, the second processor, and the third processor, when the second thread stops to run; and

changing a local memory to be mapped in part of the effective address space of the first thread from said one of the second ~~and third local memories which is to be mapped in part of the effective address space of the first thread~~ local memory and the third local memory to the memory area on the shared memory.

7 (Currently Amended): The method according to claim 6, further comprising:

restoring contents of the memory area on the shared memory to said one of the second local memory and the third local memory, when the second thread is resumed by said one of the second processor and the third processor; and

changing a local memory to be mapped in part of the effective address space of the first thread from the memory area on the shared memory ~~which is to be mapped in part of the effective address space of the first thread~~ to said one of the second ~~and third local memories~~ local memory and the third local memory.

8 (Currently Amended): The method according to claim 6, further comprising:

restoring contents of the memory area on the shared memory to the other of the second local memory and the third local memory, when the second thread is resumed by the other of the second processor and the third processor; and

changing a local memory to be mapped in part of the effective address space of the first thread from the memory area on the shared memory ~~which is to be mapped in part of the effective address space of the first thread~~ to the other of the second local memory and the third local memory.

9 (Currently Amended): A program stored in computer-readable media, which causes a computer to manage a local memory used for communication between a plurality of threads, the computer including a first processor having a first local memory, a second processor having a second local memory, and a third processor having a third local memory, the program comprising:

causing the computer to map one of the second local memory and the third local memory in part of an effective address space of a first thread to be executed by the first processor, said one of the second local memory and the third local memory being the local memory of a corresponding one of the second processor and the third processor, which executes a second thread interacting with the first thread; and

causing the computer to change a local memory to be mapped in part of the effective address space of the first thread from said one of the second local memory and the third local memory ~~which is to be mapped in part of the effective address space of the first thread~~ to the other of the second local memory and the third local memory when ~~the~~ a processor that executes the second thread is changed from said one of the second processor and the third processor ~~that executes the second thread is changed~~ to the other of the second processor and the third processor.

10 (Currently Amended): The program according to claim 9, further comprising:

causing the computer to store contents of said one of the second local memory and the third local memory in a memory area on a shared memory, which is shared by the first processor, the second processor, and the third processor, when the second thread stops to run; and

causing the computer to change a local memory to be mapped in part of the effective address space of the first thread from said one of the second ~~and third local memories which is to be mapped in part of the effective address space of the first thread~~ local memory and the third local memory to the memory area on the shared memory.

11 (Currently Amended): The program according to claim 9, further comprising:

causing the computer to restore contents of the memory area on the shared memory to said one of the second local memory and the third local memory, when the second thread is resumed by said one of the second processor and the third processor; and

causing the computer to change a local memory to be mapped in part of the effective address space of the first thread from the memory area on the shared memory ~~which is to be mapped in part of the effective address space of the first thread~~ to said one of the second ~~and third local memories~~ local memory and the third local memory.

12 (Currently Amended): The program according to claim 9, further comprising:

causing the computer to restore contents of the memory area on the shared memory to the other of the second local memory and the third local memory, when the second thread is resumed by the other of the second processor and the third processor; and

causing the computer to change a local memory to be mapped in part of the effective address space of the first thread from the memory area on the shared memory ~~which is to be mapped in part of the effective address space of the first thread~~ to the other of the second local memory and the third local memory.